Claims:

1. A mat for mounting a pollution control element in a pollution control device comprising at least two layers consisting of an alumina fiber layer and ceramic fiber layer.

2. The pollution control device according to claim 1, wherein said alumina fiber layer and said ceramic fiber layer form a single sheet without the use of an auxiliary bonding means.

3. The mat according to claim 1 or 2, wherein the weight ratio of the alumina fiber layer to the ceramic fiber layer is 3:11-11:3.

4. The mat according to claim 1 or 2, wherein the ceramic fibers that compose the ceramic fiber layer are annealed at a temperature of 700-1200°C.

5. The mat according to claim 1 or 2, wherein the alumina fiber layer contains crystalline alumina fibers formed from a mixture containing alumina and silica, and the alumina content of that fiber is 50 wt% or more.

6. The mat according to claim 1 or 2, wherein the ceramic fiber layer contains ceramic fibers formed from a mixture containing alumina and silica, and the silica content of that fiber is 45 wt% or more.

7. The mat according to claim 1 or 2, wherein the alumina fiber layer and ceramic fiber layer are formed into a single sheet by preparing a slurry containing alumina fibers and a slurry containing ceramic fibers, adhering either of the slurries to a permeable substrate and partially dehydrating the adhered slurry to form a first layer, and then adhering the other slurry to the first layer and partially dehydrating that slurry to form a second layer.

8. The mat according to any one of claims 1 to 7, wherein said mat is for mounting a catalyst support in a catalytic converter.

9. A pollution control device comprising:

a housing;

a pollution control element mounted in said housing; and

a mat disposed between said housing and said pollution control element so as to mount said pollution control element in said housing, said mat comprising at least two layers, an alumina fiber layer and a ceramic fiber layer.

10. The pollution control device according to claim 9, wherein said alumina fiber layer and said ceramic fiber layer form a single sheet without the use of an auxiliary bonding means.

11. The pollution control device according to claim 9 or 10, wherein the weight ratio of the alumina fiber layer to the ceramic fiber layer is 3:11-11:3.

12. The pollution control device according to claim 9 or 10, wherein the ceramic fibers that compose the ceramic fiber layer are annealed at a temperature of 700-1200°C.

13. The pollution control device according to claim 9 or 10, wherein the alumina fiber layer contains crystalline alumina fibers formed from a mixture containing alumina and silica, and the alumina content of that fiber is 50 wt% or more.

14. The pollution control device according to claim 9 or 10, wherein the ceramic fiber layer contains ceramic fibers formed from a mixture containing alumina and silica, and the silica content of that fiber is 45 wt% or more.

15. The pollution control device according to claim 9 or 10, wherein the alumina fiber layer and ceramic fiber layer are formed into a single sheet by preparing a slurry containing alumina fibers and a slurry containing ceramic fibers, adhering either of

the slurries to a permeable substrate and partially dehydrating the adhered slurry to form a first layer, and then adhering the other slurry to the first layer and partially dehydrating that slurry to form a second layer.